

REMARKS

The Office Action dated June 7, 2010 has been reviewed and carefully considered. Claims 1-72 remain in the application with claims 1, 18, 35, 47, and 60 being the only independent claims. Reconsideration of the above-identified application in view of the following remarks is respectfully requested.

I. Common Ownership of a Prior Art Reference Used in the 35 U.S.C. §103(a) Rejection

Claims 4, 9, 13, 14, 16, 18-26, 30, 31, 33, 42, 43, 45, 50, 51, 55, 56, 58, 61-67 and 70 stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Zon (U.S. PUGPub 2003/1569073) in view of Silverstein (EP 1130906).

The pending application and the Zon reference applied in the §103(a) rejection were, at the time the invention of the pending application was made, owned by Koninlijke Philips Electronics N.V.. Accordingly, applicant hereby requests disqualification of the Zon reference used in the 35 U.S.C. §103(a) rejection and removal of those rejections.

II. 35 U.S.C. §102(e) Rejections

Claims 1-3, 10-12, 15, 17, 27-29, 32, 34-41, 44, 46-49, 52-54, 57, 59, 60, 68, 69, 71 and 72 stand rejected under 35 USC 102(e) as being anticipated by Zon (U.S. PUGPub 2003/1569073).

Zon relates to an apparatus for adjusting controls on adjacent monitors so that uniform displays are obtained. As cited in paragraph [0001] of his specification:

The present invention relates generally to video displays or monitors. More specifically, the present invention relates to a universal remote control and corresponding method for adjusting adjacent video display or monitors to permit output substantially identical video images.

In performing these adjustments, one monitor at a time is viewed by a camera. As each successive monitor is viewed, an identical (or substantially similar) monitor image is captured by the camera. The captured image is then analyzed and appropriate adjustments are made to the monitors so that their displayed images are uniform.

The present invention relates to a pointing device connected to a camera which views a region in space, recognizes an object in that region, and then transmits, to an electrical apparatus, interface information derived from the picture. In particular, claim 1 recites (emphasis added):

1. User interaction system, comprising:
 - an electrical apparatus;
 - a portable pointing device operable by a user for pointing to a region in space;
 - a camera taking a picture; and

a digital signal processor, capable of receiving and processing the picture, recognizing an object in the region, and transmitting user interface information derived from the picture to the electrical apparatus,

wherein the camera is connected to the pointing device so that in operation it images the region pointed to.

Support for the “recognizing” feature can be found throughout the specification to include the Abstract which states:

The user interaction system comprises a portable pointing device (101) connected to a camera (102) and sending pictures to a digital signal processor (120), **capable of recognizing an object** (130) and a command given by the user (100) by moving the pointing device (101) in a specific way, and controlling an electrical apparatus (110) on the basis of this recognition. [emphasis added]

Zon fails to teach this feature of the present invention. As noted above, his camera views one monitor at a time:

one of the N images generated by a respective one of the monitors 200a-200n is transmitted from camera 100 to the universal remote control device 300 via the first communications channel 350. It will be noted that the camera 100 is preferably located directly in front of the selected monitor at a distance where it is possible to view the entire **image without viewing a significant portion of the monitor's surroundings**. [emphasis added]

Zon fails to teach recognition of an object viewed by his camera. Moreover, as implied by the emphasized portion above, Zon’s invention incurs problems should his camera view more than the single monitor object he is attempting to analyze. Moreover, in doing his analysis Zon requires that each monitor being viewed essentially contain the same image:

[0031] It should be noted at this point that the preferred embodiments according to the present invention advantageously can be employed **while all of the monitors 200a-200n are displaying an identical static image, the latter being generated by a video generator connected to all of the monitors.** It will also be noted that it is not always practical or even feasible to connect all of the monitors to a single video source, e.g., when several TV sets operated by a restaurant are connected to a conventional antenna. **In that case, the initialization routine advantageously could include subroutines for causing all of the monitors to display an image generated by an onscreen generator included in each monitor** [emphasis added].

As Zon's invention relates to adjusting the monitors so that their displayed pictures appear uniform, the use of identical images to analyze is required. That is, it would be meaningless to perform a comparison between monitors of analyzed picture parameters (e.g., "hue, color saturation, brightness, contrast, etc" (referencing para. [0033])) when the associated pictures were not the same.

Claim 1 recites "recognizing an object in the region [in space]" pointed to by a pointing device. Applicants submit that Zon fails to address this feature of the claim. What object is being recognized? Zon is not recognizing the monitors in space. The monitor pictures are the same. There is no teaching that he is looking for a particular object in those pictures. In fact, Zon merely analyzes the picture received for various picture values that are compared against predetermined values ([0033], lines 1-4). Clearly, Zon fails to teach "recognizing an object in the region [in space]" pointed to by a pointing device, as recited in claim 1.

Further, Applicants submit that Zon fails to teach the “portable pointing device” as recited in claim 1. The Examiner states that “the universal remote control system, see fig.3 and [0027] lines 1-7” teach this feature (Office Action, page 3, 1st paragraph). However, in Zon there is no object identified as “the universal remote control system.” If the Examiner intends to mean the “universal remote control device 300” illustrated in Fig. 3 and described in [0027] then it is clear that this device is distinct from Zon’s video camera 100. Further, in Zon it is the camera that gets pointed to the electrical apparatus (monitor 200) and not the universal remote control device 300.

Claim 1 recites a portable pointing device and a camera. The camera is connected to the pointing device so that it takes an image of the region in space that is being pointed at. In the language of claim1, “wherein the camera is connected to the pointing device so that in operation it images the region pointed to.” Zon does not teach the feature of a pointing device, distinct from a camera, and connected to it as recited in claim 1.

A claim is anticipated only if each and every element recited therein is expressly or inherently described in a single prior art reference. Zon cannot be said to anticipate the present invention, because Zon fails to disclose each and every element recited. As shown, Zon fails to disclose the limitations of “recognizing an object in the region” as is recited in claim 1. Claims 35 and 47 also contain this “recognizing an object in the region” feature and are deemed patentable over Zon for at least the same reasons. Further as shown, Zon fails to teach the feature of a pointing device as recited in claim 1. Claims 35, 47 and 60 also contain this “pointing device” feature and are deemed patentable over Zon for at least the same reasons.

Further, with respect to claim 60, this claim comprises a “localization beacon” that is used by “the digital signal processor in order to recognize to where the pointing device is pointing” (lines 8-10). As with the “recognizing an object in the region” element of claim 1, Zon’s invention fails to teach or suggest this recognition feature. Moreover, as noted above, Zon has no need for such a recognition feature as his camera views only one object – the monitor he is analyzing. The Office Action points to Zon’s “analog/digital signal generated by the video camera, see [0032] lines 5-10” (Office Action, page 9, 1st paragraph) as teaching this feature. This cited section relates to the video image captured by the camera. There is nothing in this section, or anywhere else in Zon that teaches “at least one localization beacon” that is used “to recognize to where the pointing device is pointing” as recited in claim 60.

Having shown that Zon fails to disclose each and every element claimed, applicant submits that claims 1, 35, 47 and 60 are allowable over Zon. Applicant respectfully requests reconsideration, withdrawal of the rejection and allowance of claims 1, 35, 47 and 60.

With regard to claims 2-3, 10-12, 15, 17, 27-29, 32, 34, 36-41, 44, 46, 48, 49, 52-54, 57, 59, 60, 68, 69, 71 and 72, these claims ultimately depend from one of independent claims 1, 35, 47 and 60, which have been shown to be not anticipated and allowable in view of the cited references. Accordingly, claims 2-3, 10-12, 15, 17, 27-29, 32, 34, 36-41, 44, 46, 48, 49, 52-54, 57, 59, 60, 68, 69, 71 and 72 are also allowable by virtue of their dependence from an allowable base claim.

III. Conclusion

For all the foregoing reasons, it is respectfully submitted that all the present claims are patentable in view of the cited references. A Notice of Allowance is respectfully requested.

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